# Abstracts

## Microwave Characterization of Partially Magnetized Ferrites

*J.J. Green and F. Sandy. "Microwave Characterization of Partially Magnetized Ferrites." 1974 Transactions on Microwave Theory and Techniques 22.6 (Jun. 1974 [T-MTT] (Special Issue on Microwave Control Devices for Array Antenna Systems)): 641-645.*

In order to assist the microwave engineer in predicting the performance of partially magnetized devices, we have characterized the microwave permeability of partially magnetized materials. The real part of the tensor permeability elements, μ, kappa, and μ/sub z/, depends primarily on the parameters gamma 4pi M/omega and gamma 4pi M/sub s/omega. Empirical formulas have been developed which show the dependence. At frequencies sufficiently below omega = pi 4pi M/sub s/, the loss can be characterized by the value of μ'' at 4pi M = 0. μ', kappa', and μ/sub z/' depend weakly on composition, whereas μ'' (4pi M = 0) does depend upon the chemical composition.

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